



2 Williams Street Chelsea, MA 02150 (617) 889 - 6515



QUALITY CERTIFICATE

Vessel	"B-120"	Port	Quincy, MA	Report	113003
Customer	Sprague Energy	Date	November 18, 2003	Reference	
Operation	Analysis	Terminal	Sprague Energy	Sample #	394787

Name of material being tested Description of sample source Samples Drawn by (company) Samples Tested by (company)

#6 Fuel Oil

Shore Tank#11 After Discharge Inspectorate America Corp. Inspectorate America Corp.

Tests being Performed	Test method	Sample Results
Gravity API @ 60 F	D - 287	17.3
Flash Point, PMCC, F	D - 93	205
Viscosity cSt @ 122 F	D - 445	193.0
Viscosity SFS @ 122 F	D - 1261	91.5
Pour Point, F	D - 97	48
Sulfur, wt %	D - 4294	0.488
Water & Sediment, vol %	D - 1796	0.10
Gross Heat of Combustion, BTU / lb	D - 240	18,937
Gross Heat of Combustion, BTU / gal	D - 240	149,966
Nitrogen, wt %	D - 3228	0.27
Ash wt %	D - 482	0.02
Ashphaltenes, wt %	IP - 143	2.09
Conradson Carbon Residue, wt %	D - 189	8.09
Vanadium, ppm	D - 5863	26
Sodium, ppm	D - 5863	15
Water by Distillation, Vol %	D - 95	0.2
Sediment by Extraction, wt%	D - 473	0.068
SPRAGUE PROVIDES THE ATTACHED INSPECTION REPRESENTING THE SPECIFICATIONS OF THE PRODUCTERMINAL IN TANK ON THE DATE OF INSPECTION NOTED THIS ANALYSIS IS PROVIDED TO THE CUSTOMER FOR TESTABLISHING THE INDEPENDENTLY VERIFIED PRODUCTION OF THE STABLISH OF THE INSPECTION REPORT IS NOT TO BE PURPOSE. SPRAGUE DISCLAIMS ANY LIABILITY FOR THE BY SPRAGUE TO CUSTOMER. SPRAGUE DISCLAIMS ANY MERCHANTABILITY OR FITNESS FOR AN INTENDED USE EXCENT OF THE SECONDARY OF THIS INSPECTION OF THE SECONDARY OF THIS INSPECTION.		

^{**} Annotates Analysis Contracted Out

Michael White